

**Project Execution and Integration (PEI)
for the National Energy Technology Laboratory (NETL)**

DE-SO26-08000662

The goal of this procurement is to provide Project Execution and Integration (PEI) Services for the National Energy Technology Laboratory (NETL). The following format has been used for this Statement of Work (SOW):

- 1.0 Objectives
- 2.0 Scope of Work
- 3.0 Task Descriptions
- 4.0 Glossary

1.0 Objectives

The objective of this solicitation is to obtain technical and administrative support services to complement the efforts of federal staff to administer, execute, implement, monitor, manage and evaluate internal and external projects and provide general assistance for other project related activities, such as acquisition planning, validation assessments and studies, development of information and material to be used for outreach activities, and training.

NETL program and project initiatives are national in scope and emphasize partnerships with private industry, academia, state governments, and other governmental stakeholders to create commercially-viable technological solutions to national energy and environmental problems. Project management activities also require significant internal interactions and communication between other NETL staff, including Technology Managers, Technology Teams, other NETL Managers, personnel involved in program development and other support activities/services. Therefore, maintaining (and developing) seamless and compatible communication and information transfer systems, internal and external to NETL, should be considered a primary requisite under this solicitation (which includes project specific existing and future computer software systems).

To effectively execute work assignments, the Contractor must effectively assess and adjust staffing to respond to the changing requirements inherent to cutting-edge research organizations such as NETL. Flexibility in staffing is a key objective of the overall contract and requires that managers and staff remain current on requirements and technical advancements. The Contractor shall have a sufficient level of expertise to successfully support the management and integration of all stages of science and technology development leading to commercially viable solutions. Through this solicitation, NETL seeks to access a best in class RD&D support service organization that can assist NETL in conduct of its mission.

In addition, NETL requires that the Contractor uses effective and efficient management structures, systems, and operations that are cost effective. The Contractor shall plan and execute work in a manner that will foster the objective demonstration of competence in management areas such as (1) development of approach, (2) problem resolution, (3) coordination, (4) innovation, and (5) manpower management. All work shall be conducted in a manner that shows continual improvements.

2.0 Scope of Work

The work to be conducted under this contract specifically involves services to support implementing, managing, assessing and monitoring **projects**. A project is defined as an individual activity conducted under the laboratories programs and sub-programs (a definitely formulated piece of research). Currently, NETL administers approximately 1,800 individual projects (internal and external). Anticipated work assignments for this service contract would support activities primarily at the Morgantown and Pittsburgh sites, requiring on-site presence at both sites and potential travel to other locations. The work requires the application of a mix of technical expertise in scientific and engineering disciplines appropriate for the range of projects in each of NETL's program areas, project management expertise to enhance the success of project-related activities, and expertise to effectively manage project-specific information/data. The offeror is strongly encouraged to review the following reference which is available on the NETL reading room – "Project Management Guidelines: Extramural Research, Development and

Demonstration”. This reference provides detailed descriptions of NETL Project Manager functions, which this PEI contract will support.

The Contractor shall provide technical and administrative support services for project execution, implementation and management as well as provide general assistance for other project related activities, such as acquisition planning, validation assessments and studies, development of information and material to be used for outreach activities, and training. Please note that the project manager responsibilities for the individual projects will remain as a federal function and not with the selected contractor. The Contractor shall manage their workforce and the overall execution of work to ensure appropriate staffing of individual tasks, integration of work products, communications among tasks, and coordination within the program organizational structure.

Task assignments for this contract shall focus on the execution and implementation of services that support project based functions and will provide support to all NETL organizational elements including, but not limited to, the Office of Systems Analysis and Planning, the Strategic Center for Natural Gas and Oil, the Strategic Center for Coal, the Project Management Center, the Office of Research and Development and the Office of Institutional and Business Operations. These NETL organizational elements perform project management services for DOE Programs which include, but are not limited to, DOE’s Offices of Fossil Energy (FE), Energy Efficiency and Renewable Energy (EERE) and Electricity Delivery and Energy Reliability (OE).

The work to be conducted under the PEI services contract will be defined primarily (but not solely) by the following characteristics:

- Provide project management support services for the NETL workforce (primarily Project Managers, Technology Managers and Division Directors).
- Utilize both on-site and off-site Contractor personnel to accomplish work via a flexible workforce,
- Conduct complex administrative and technical tasks that support multiple technical service areas. These tasks are anticipated to require integration and synthesis of information and workflow. The desired result of these cross-cutting and integrated efforts is efficient and effective management of initiatives throughout the lifetime of the task,
- Consist of predictable, longer-term tasks with generally defined end objectives, but composed of smaller, serial subtasks (with more defined objectives) in which the results and deliverables of previous subtasks affect the design, deliverables, and specific objectives of subsequent subtasks,
- Provides for shorter-term tasks requiring unique and/or specialized resources and facilities to address specific technology issues,
- Ensure that NETL has access to a diversity of high quality scientists, engineers, and project/acquisition management administrators with expertise appropriate to the laboratory’s mission.

It is anticipated that the work scope will support the following six functional areas (to be described in more detail in Sections 2.1 through 2.6: 1.) Acquisition Planning and Execution, 2.) Project Control, Oversight, and Assistance, 3.) Validation Assessments and Studies, 4.) Project Reviews, 5.) Project-Specific Information Management, Dissemination and Interface with Program Outreach, and 6.) Project Management Training and Process Improvement

2.1 Acquisition Planning and Execution

The Contractor shall provide logistical and administrative support services to Federal staff for acquisition planning, management and execution. Work elements include, but are not limited to, the following activities:

- a. Preparing background technical information (e.g., literature reviews, white papers, etc.) for solicitations in support of the acquisition planning process.
- b. Constructing and maintaining necessary databases to process all acquisition and solicitation information.
- c. Developing and maintaining necessary acquisition planning and development files.

- d. Preparing necessary internal and external acquisition planning communications documentation.
- e. Providing expert technical assistance during the proposal review and evaluation process (which may include assessments of the environmental impacts of the proposed work).
- f. Preparing acquisition planning and related presentations.
- g. Coordinating and inputting necessary data and project information to the appropriate databases upon project selection and at the time of award.

2.2 Project Control, Oversight, and Assistance

The Contractor shall provide technical support services for the development and application of best practices relative to project planning, management, control/tracking and reporting tools/methodologies for technical, schedule and cost goals and metrics. Work elements include, but are not limited to, the following activities:

- a. Developing processes, documentation and control methodologies for monitoring Division budgets and funding mechanisms and allocations.
- b. Providing documentation to support the Divisions in identifying, monitoring and tracking of project performance, deliverables, milestones and metrics.
- c. Assisting in the conduct of Division and project audits to evaluate practices in project planning and execution compliance and recommend “best-in-class” practices, processes and procedures aimed at improving overall effectiveness of the Divisions in meeting programmatic requirements.
- d. Assisting in the development of standardized project management guidelines, procedures, and best practices.
- e. Providing quality assurance and quality control services for division and project related documents and processes.
- f. Developing new testing and measurement procedures and standards to verify performance of products.

2.3 Validation Assessments and Studies

The Contractor shall analyze, review, and assess technical studies and project plans (including technical, cost, schedule, risk, safety, environmental, etc) and reports for accuracy, soundness, and feasibility. Work elements include, but are not limited to, the following activities:

- a. Analyzing, reviewing, and assessing technical studies and project reports for accuracy, scientific soundness and technical feasibility. The assessments may include life cycle and economic costs, progress toward meeting project-specific objectives and milestones, technology scale-up, commercial viability of technology products (economics and performance), and risks (e.g. technical, project and environmental, and export compliance reviews).
- b. Conducting short term and quick turnaround technical, environmental, risk, and cost analyses.
- c. Preparing independent reviews and assessments; preparing feasibility studies, cost studies, scale-up studies and project life-cycle cost evaluations.
- d. Developing energy efficiency or performance rating and labeling systems and standards for residential or commercial products, to include but not limited to, homes, buildings and transportation systems, appliances or products.
- e. Verifying performance of market-available products through independent testing.

- f. Providing alternatives for corrective actions to reduce project risk and to ensure successful project outcomes.

2.4 Project Reviews

The Contractor shall provide logistical, administrative, and technical support for peer and independent project reviews to determine economic, and/or technical viability and performance. Work elements include, but are not limited to, the following activities:

- a. Providing logistical, administrative and technical support for project and program reviews necessary to conduct expert independent assessments of individual projects in order to determine economic and/or technical viability and project performance, including alternative paths for corrective actions.
- b. Providing project analyses and developing R&D state of the art summaries, project evaluations, roadmap development facilitation including issues analysis and technical analysis in various project areas.

2.5 Project-Specific Information Management, Dissemination and Interface with Program Outreach

The Contractor shall develop, update/maintain requisite information management processes and applications that would improve information flow/quality, project management performance, as well as improve stakeholder outreach capabilities. Work elements include, but are not limited to, the following activities:

- a. Developing, updating and/or maintaining project related information technology (databases or information technology systems). This may include investigating, recommending and developing new systems and/or improvements to legacy systems.
- b. Developing project-specific communications plans and public/stakeholder involvement plans and products.
- c. Providing project-specific outreach related activities that may include, but not limited to:
 - Technical/administrative support disseminating project-specific information.
 - Development of internal/external manuscripts and presentation materials for Project Managers.
 - Attending technical conferences to present and/or gathering pertinent project information, as directed.
 - Preparing content for project-specific publications, brochures, newsletters, project fact sheets, Tech-Lines and other related documents.
 - Maintaining and preparing information for the NETL intranet website with project-specific content
 - Developing draft responses to public inquiries.
- d. Assisting in the development of technical content for, and arranging, and facilitating project-specific meetings.

2.6 Project Management Training and Process Improvement

The Contractor shall develop, and provide necessary training for, standardized project management guidelines, best practices and process improvement. Work elements include, but are not limited to, the following activities:

- a. Supporting the planning, development, maintenance, and promulgation of best practice guidance, systems, applications, and tools for all project management activities at NETL to ensure consistency in accordance with NETL guidelines for both acquisitions and financial assistance instruments.
- b. Developing project management training materials and tools.
- c. Providing all logistical, administrative and technical support (including the necessary technical and management expertise) to conduct specialized project management training, including classroom and computer based training approaches.

3.0 Task Descriptions

The Contractor shall actively manage their workforce and the overall execution of work to ensure appropriate staffing of individual tasks, maintenance of staff knowledge and skills, integration of work products, quality of work products, communications among tasks, and coordination within the program organizational structure(s). Management and oversight functions of assigned task orders by the Contractor are facilitated by the development and maintenance of effective planning or procedural documents delineated below.

3.1 Organizational Planning and Management

The Contractor shall develop and maintain a Management Plan, and utilize this plan to manage the total work and individual task orders assigned under the contract. The Management Plan is a specified deliverable under the contract; however, it must be updated and revised by the Contractor, as required, and reviewed at least annually, by both NETL and the Contractor, to ensure that it accurately reflects current estimated work load and significant changes in requirements. The Management Plan is to be the guiding document for the Contractor's organization that delineates how the work is organized and defines the management, technical and administrative systems that will be used to meet the objectives of this contract. The Management Plan should specifically reference the Contractor's management practices and procedures as appropriate for the conduct of the work. The Contractor shall specifically include sections in the Management Plan that describe : 1) a high level Executive Summary; 2) the scope of work; 3) a work breakdown structure aligned with task orders; 4) an organizational work breakdown structure and associated Staffing Plan; 5) a Communications Plan delineating overall and task lines of communication and coordination requirements; 6) Quality Assurance/Quality Control (QA/QC) practices for individual work products; 7) projected funding and costing profiles, once tasks are assigned; and 8) success criteria and planned outcomes for the organization.

Annual updates to the Management Plan shall be delivered to DOE 30 days prior to the beginning of the fiscal year, based on integrated annual task planning between the Task COR and the Contractor Task Manager. The DOE Contract COR shall review and approve the Management Plan prior to the start of the fiscal year.

3.2 Annual Task Planning and Management

The Government will provide specific annual guidance to the Contractor that identifies individual tasks that are to be funded for the Fiscal year. There shall be no individual subtasks identified within the contract structure; however, subtasks and lower level work elements shall be included in the Task Management Plan defined below.

The Contractor shall support and participate in the Government's annual planning process, such that the Government's annual guidance is clearly understood by both parties at the beginning of the fiscal year. During this planning process, the Contractor shall develop a Task Management Plan that is approved by the Task COR and shall, at a minimum, include:

- 1) Statement of Work
- 2) Work Breakdown Structure (WBS)
- 3) Schedule and cost for individual work elements
- 4) Critical milestones (not accomplishments or deliverables)
- 5) Staffing Plan – Identify personnel resources to be applied to the task over the life of the task; must include qualifications of key management and technical personnel
- 6) Specific deliverables and date of delivery
- 7) Quality objectives or success criteria – mutually developed between the Task COR and the Contractor Task Manager

To facilitate annual planning the Government and the Contractor shall mutually identify those task work elements that are predictable, schedulable, and recurring from year to year. These work elements comprise the Base Task activities that will be funded annually, and do not require renegotiation for the annual work scope for a task. Planning efforts should focus on the additions to and adjustments of annual work activities that are derived from DOE's annual planning and budget processes, which includes consideration of benefits, results of on-going programs and projects, and initiatives identified as a result of work products from this contract. Annual work activities may also be identified by other Federal agencies that are working cooperatively with NETL through

Interagency Agreements. Effective, integrated planning between the Government and the Contractor staff is the key requirement for defining work elements and ensuring the work is properly staffed to provide the services identified in Section 2.0.

3.3 High Level Metrics Reporting

The Contractor shall develop a High-Level Metrics Reporting Plan that the Government will use to evaluate overall performance in meeting the requirements of the SOW. The High-Level Metrics Reporting Plan summarizes the metric and its acceptable quality levels; it describes how performance will be monitored and how the results will be evaluated. The High-Level Metrics Reporting Plan will be reviewed by DOE/NETL on a yearly basis and will be due 30 days after the beginning of the fiscal year. At a minimum, the plan should address the following metrics:

- Funds management and fiscal accountability
- Adherence to Staffing Plans
- Earned value assessment (or similar analysis) for each task order including cost and schedule variation
- Work element completion targets (within budget and project period)
- Adherence to task order schedule (for milestones and deliverables)
- Attainment of success criteria and quality objectives for both task order outputs and contract outcomes

The metrics listed above are not meant to be comprehensive and are provided as minimum guidance. The Contractor is encouraged to identify additional metrics that are applicable to the success of the program initiatives.

3.4 Execution of Annual Tasks

The Contractor shall execute work elements in accordance with the approved Annual Task Plan, as well as other unanticipated task orders assigned during the course of the Contract term.

4.0 Glossary

4.1 Acronyms

<u>Acronym</u>	<u>Definition</u>
COR	Contracting Officer's Representative
DOE	Department of Energy
EPAct	Energy Policy Act of 2005
EEO	Equal Employment Opportunity
EERE	Office of Energy Efficiency and Renewable Energy
ES&H	Environmental Safety and Health
FE	Office of Fossil Energy
GPRA	Government Performance Results Act
HQ	DOE Headquarters
ISM	Integrated Safety Management
ISO	International Organization for Standardization
NEPA	National Environmental Policy Act
NETL	National Energy Technology Laboratory
OE	Office of Electricity Delivery and Energy Reliability
OMB	Office of Management and Budget
PEI	Project Execution and Implementation
PPM	Program Performance and Management
QA/QC	Quality Assurance/Quality Control
R&D	Research and Development
RD&D	Research, Development and Demonstration
RDD&D	Research, Development, Demonstration and Deployment
SOW	Statement of Work

WBS Work Breakdown Structure

4.2 Definitions

<u>Word/Phrases</u>	<u>Definition</u>
Division	A unique and specific work group within the NETL organization assigned to implement projects or activities for one or more programs that NETL supports.
Electronic Reading Room	All references in the Statement of Work and the Solicitation that refer to the “Electronic Reading Room” indicates information that will be available only during the solicitation phase of this acquisition. This site will not be maintained after contract award. http://www.netl.doe.gov/business/solicit/ssc208/index.html
Government	The U.S. DOE or its duly authorized contracting and/or technical representative.
Off-Site	Any location not on one of the NETL sites as defined in “on-site” below.
On-Site	Federally-owned or leased property within the defined boundaries of the sites at Albany, OR; Fairbanks, AK; Morgantown, WV; Pittsburgh, PA; and Tulsa, OK, including, in the case of Morgantown, NETL leased space in the Research Ridge complex immediately adjacent to the boundary.
Program	A <i>program</i> is an organized set of ongoing activities directed toward a common purpose or goal undertaken in support of an assigned mission area. Typically, a program is a group or portfolio of related projects managed in a coordinated way to accomplish broad goals over a relatively long period of time (e.g., a 10 to 15 year planning horizon), to which individual projects contribute.
Project	A project is defined as an individual activity conducted under the laboratories programs and sub-programs. A project is a planned undertaking such as a definitely formulated piece of research.